

### **REMARKS**

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

In the specification, paragraphs have been amended on pages 1-3, 7-10, 12, 14, 15, 25, 29, 30, 32, 33, and 38.

New claims 18-20 have been added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

Applicant respectfully submits that the disclosure of Applicant's application provides support for the amendments to the claims. For example, at least paragraphs 0011, 0012, 0013, 0016, 0017-0019, 0034, 0041, 0044, 0048, 0051, 0054, 0064, 0077; Figures 1-5 and 8-12; and original claims 11 and 12 provide support for the amendments to the claims.

After amending the claims as set forth above, claims 1-20 are now pending in this application. Claims 9, 10, and 12-17 have been withdrawn.

#### **Information Disclosure Statements**

Applicant acknowledges receipt of a signed and initialed copy of the PTO/SB/08 form submitted with the Information Disclosure Statement of June 1, 2006.

Applicant notes that an Information Disclosure Statement and PTO/SB/08 form were submitted on April 8, 2010. Applicant respectfully requests that the Office provide a signed and initialed copy of the PTO/SB/08 form with the next Office correspondence.

#### **Rejections under 35 U.S.C. § 112**

Claims 1-8 and 11 are rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. In regard to the rejections of claims 1-7 and 11, Applicant respectfully

submits that the amendments to the claims render these rejections moot. In regard to the rejection of claim 8, particularly that there is no antecedent basis for the language “the valve member,” Applicant respectfully submits that there is antecedent basis for this language in lines 5-6 of claim 8. Reconsideration and withdrawal of these rejections is respectfully requested.

**Rejection under 35 U.S.C. § 102**

Claims 1-4 are rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. Patent No. 5,615,933 to Kidston *et al.* (hereafter “Kidston”). This rejection is respectfully traversed.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See generally MPEP § 2131.

Kidston discloses an electric vehicle with regenerative and anti-lock braking with a hydraulic brake system 17 including actuators 114 and 116, solenoid valves 102 and 104, and a brake control 66 that controls the system 17 and monitors rotational speeds of vehicle wheels via speed sensors 28, 30, 52, and 54. See Kidston at col. 2, lines 41-53.

However, Kidston does not disclose a brake device comprising, among other things, a fluid pressure brake, a wheel-cylinder pressure passage, an on-demand brake pressure passage, a brake reaction torque detector configured to detect a brake reaction torque inputted to the fluid pressure brake, and a wheel-cylinder pressure modulator valve that is fluidically connected with the wheel-cylinder pressure passage and the on-demand-brake-pressure-passage, the wheel-cylinder pressure modulator valve being capable of modulating the wheel-cylinder pressure so that the fluid pressure brake torque can be decreased based on the brake reaction torque and the on-demand brake torque, as recited in amended claim 1. Claims 2-4 depend from claim 1.

In particular, the system of Kidston does not include a brake reaction torque detector configured to detect a brake reaction torque inputted to the fluid pressure brake, as recited in claim 1. Kidston discloses speed sensors and pressure sensors but is silent in regard to a brake reaction torque detector configured to detect a brake reaction torque inputted to the fluid pressure brake, as recited in claim 1. Applicant notes that wheel speed sensors, such as those in the system of Kidston, are typically used to obtain a slip rate of each wheel, such as by comparing an estimate vehicle speed to the wheel speed to obtain a slip ratio, and to maintain the slip rate within a certain range to ensure a higher friction coefficient between wheels and road surfaces, with the solenoid valves 102, 104 being used to decrease or maintain an increased fluid pressure to the wheels. In other words, the system and sensors of Kidston do not detect a brake reaction torque inputted to a fluid pressure brake, as recited in claim 1.

In addition, Kidston does not disclose a wheel-cylinder pressure modulator valve being capable of modulating the wheel-cylinder pressure so that the fluid pressure brake torque can be decreased based on the brake reaction torque and the on-demand brake torque, as recited in amended claim 1.

Applicant's invention advantageously enables a brake device to obtain a reaction brake torque and to modulate a wheel-cylinder fluid pressure to suppress a variation in a brake force applied to a wheel, regardless of a variation in friction coefficient.

For at least the reasons discussed above, Kidston does not anticipate claims 1-4 because Kidston does not disclose all of the features of amended claim 1.

### **Rejection under 35 U.S.C. § 103**

Claims 5-7 and 11 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Kidston in view of U.S. Patent No. 6,113,119 to Laurent *et al.* (hereafter "Laurent"). This rejection is respectfully traversed. Laurent fails to remedy the deficiencies of Kidston discussed above in regard to independent claim 1, from which claims 5-7 and 11 depend. Reconsideration and withdrawal of this rejection is respectfully requested.

**Allowable Subject Matter**

Applicant gratefully acknowledges the indication that claim 8 includes allowable subject matter.

**New Claims**

New claims 18-20 have been added. Claims 18-20 depend from claim 1 and are allowable over the prior art for at least the reasons discussed above and for their respective additional recitations.

**Conclusion**

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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